selecting either said direct sequence spread spectrum transmitter means to transmit said input signal as a direct sequence spread spectrum signal or said frequency hopping spread spectrum transmitter means to transmit said input signal as a frequency hopping spread spectrum signal; and

a receiver capable of receiving and demodulating both direct sequence spread spectrum modulated signals and frequency hopping spread spectrum modulated signals.

REMARKS

Claims 1-19 are pending in the application and are presented for reconsideration and further examination in view of the foregoing amendments and the following remarks. By the foregoing amendments, Claim 14 has been amended.

The specific changes to the amended claims are shown on a separate set of pages attached hereto and entitled **VERSION WITH MARKINGS TO SHOW CHANGES MADE**, which follows the signature page of this Amendment. On this set of pages, the insertions are underlined while the **[deletions are bolded and enclosed within brackets]**.

Rejections Under § 102(e)

In the Office Action, Claims 1-12 and 14-19 were rejected under 35 U.S.C. § 102(e) as being anticipated by Sumner (U.S. Patent No. 5,805,634). Applicant respectfully traverses this ground of rejection. In addition, Applicant expressly reserves the right to challenge whether Sumner is available as prior art in the present application.

Sumner is directed to methods and apparatus for transmitting and receiving power hopped direct sequence spread spectrum (PHDSSS) signals. (Sumner, Abstract). Sumner does not appear to teach or suggest transmitters or receivers which operate in different modes. All of Sumner's description of transmitters and receivers appear to describe systems which consistently operate in a single mode, i.e., power hopped direct sequence spread spectrum.

Pending Claim 1 is directed to a dual mode wireless transceiver which comprises, *inter alia*, a direct sequence spread spectrum transmitter portion, a frequency hopping spread spectrum transmitter portion and a mode selection circuit which selectively activates one of the transmitter portions depending on the mode of operation.

In the Office Action, element 102 of Figure 2 of Sumner was pointed to as corresponding to a direct sequence spread spectrum transmitter portion. Element 112 of that figure was pointed to as corresponding to a frequency hopping spread spectrum transmitter portion. Element 126 of Figure 2 was pointed to as corresponding to the claimed mode selection circuit. Specifically, control signal P1 was pointed to as having the capability to cause the system of Sumner to operate as a DSSS system. However, Applicant notes that element 126 of Figure 2 of Sumner is described as a portion of the power adjuster 116 which generates the predetermined power hopping sequence output in parallel at a plurality of hop sequence outputs. (Sumner, column 5, lines 20-23). The power hopping sequence generator 126 does not "selectively activate" elements 102 and 112 of the system of Sumner. In addition, Sumner does not appear to describe anywhere selectively activating the encoder 102 or the carrier generator 112.

In addition, the Office Action points to Figures 5 and 6 of Sumner as corresponding to the claimed receiver portion capable of receiving and demodulating both direct sequence spread spectrum modulated signals and frequency hopping spread spectrum modulated signals. However, the circuits depicted in Figures 5 and 6 are described in Sumner as PHDSSS receivers. (See Sumner, column 7, lines 8-11, and column 8, lines 51-53). The circuits represented in those two figures are not capable of demodulating both direct sequence spread spectrum modulated signals and frequency hopping spread spectrum modulated signals.

In view of the foregoing, Applicant respectfully submits that Claim 1 is patentable over the references of record as are Claims 2-7 which depend therefrom.

Independent Claim 8 is generally directed to a dual mode wireless transceiver which includes, *inter alia*, a spreading code generator, a hopping sequence generator, a modulating mixer and a spread spectrum control signal system coupled to control application of said spreading code to said spreading code mixer and said hopping sequence to said frequency generator. The spread spectrum control signal system, by its control of the application of the spreading code and the hopping sequence, allows the claimed transceiver to switch between a frequency hopping spread spectrum transmission mode and a direct sequence spread spectrum transmission mode. No such combination of elements, including a spread spectrum control signal system which controls application of the spreading code to a spreading code mixture and a hopping sequence to a frequency generator, is taught or suggested by Sumner. For example, Figure 2 of Sumner shows a spreading code sequence generator which is multiplied by the

predetermined spreading sequence in a conventional high-speed multiplier 110. Sumner does not teach or suggest controlling application of the spreading code. Sumner also does not teach or suggest controlling application of the hopping sequence to the frequency generator. Actually, Sumner describes controlling application of the power levels to multiple parallel frequency generators.

Therefore, Applicant respectfully submits that Claim 8 and Claims 9-13 are patentable over the references of record at least for the reasons indicated above.

Claim 14 as amended is generally directed to a cordless telephone dual mode wireless transceiver which includes, *inter alia*, means for modulating an input signal as a direct sequence spread spectrum signal, means for modulating the input signal as a frequency hopping spread spectrum signal and a mode selection means for selecting either the direct sequence spread spectrum transmitter means or the frequency hopping spread spectrum transmitter means. No such system is taught or suggested by Sumner.

As has been noted above, Sumner does not teach or suggest a means which modulates an input signal as a frequency hopping spread spectrum signal or a means which modulates a signal to be transmitted as a direct sequence spread spectrum signal. Sumner only teaches and describes a system which transmits and receives a power hopped direct sequence spread spectrum signal. In addition, Sumner does not include the claimed mode selection means. Sumner does not have any teachings or suggestions as to how to select between a direct sequence spread spectrum transmitter means and a frequency hopping spread spectrum transmitter means.

Therefore, Applicant respectfully submits that Claim 14 is patentable over the references of record. Additionally, Claims 15-19 which depend from Claim 14 are patentable at least for the reasons set forth above.

Conclusion

The Applicant has endeavored to address all of the Examiner's concerns as expressed in the outstanding Office Action. Accordingly, amendments to the claims, the reasons therefor, and arguments in support of the patentability of the pending claim set are presented above. Any claim amendments which are not specifically discussed in the above remarks are made in order to improve the clarity of claim language, to correct grammatical mistakes or ambiguities, and to otherwise improve the capacity of the claims to particularly and distinctly point out the invention to those of skill in the art. In light of the above amendments and remarks, reconsideration and

withdrawal of the outstanding rejections is specifically requested. If the Examiner finds any remaining impediment to the prompt allowance of these claims that could be clarified with a telephone conference, the Examiner is respectfully requested to initiate the same with the undersigned.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: 11/21/02

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

14. (Amended) A cordless telephone dual mode wireless transceiver comprising:

a direct sequence spread spectrum transmitter means for modulating an input signal as a direct sequence spread spectrum signal;

a frequency hopping spread spectrum transmitter means for modulating the input signal as a frequency hopping spread spectrum signal;

a mode selection means coupled to said direct sequence spread spectrum transmitter means and to said frequency hopping spread spectrum transmitter means for selecting either said direct sequence spread spectrum transmitter means to transmit said input signal as a direct sequence spread spectrum signal or said frequency hopping spread spectrum transmitter means **[for modulating the input signal]** to transmit said input signal as a frequency hopping spread spectrum signal; and

a receiver capable of receiving and demodulating both direct sequence spread spectrum modulated signals and frequency hopping spread spectrum modulated signals.